REMARKS

Claims 1-39 were pending in the application. Independent claims 1, 30 and 32 have been amended to further clarify Applicants' invention. Dependent claims 3, 5-8 and 33 have also been amended. Claims 27-29 and 38 have been canceled without prejudice to refile or as to subject matter. New claims 40-42 have been added. The following remarks, in conjunction with the above presented amendments, are believed to be fully responsive to the Office Action. Claims 1, 30, 32 and 39 are the independent claims. Favorable reconsideration is requested. Applicants thank the Examiner for the allowance of claim 39.

On page 1 of the Office Action status box 2b) "This action is nonfinal" is checked. This agrees with the record on PAIR, reproduced below, and the fact that this is a first office action after the filing of an RCE. However, on page 2 of the Office Action, Paragraph 2, it erroneously states "This action is final." Applicants respectfully request that the record be corrected and the non-finality of the Office Action be confirmed.

10/725,773 **Method and system for scaling control in 3D displays ("zoom slider")**

Select New Case | Application Data | Transaction History | Image File Wrapper | Continuity Data | Published Documents | Address & Attorney/Agent

Transaction History

Date	Transaction Description
04-03-2007	Electronic Review
04-01-2007	Email Notification
03-27-2007	Mail Non-Final Rejection
03-19-2007	Non-Final Rejection

Rejection of Claims 1-35 and 37 Under 35 U.S.C. 103(a)

Claims 1-35 and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5, 963, 213 to Guedalia ("Guedalia") in view of the United States Published Patent Application No. 2003/0043170 to Fluery ("Fleury"). This rejection is articulated relative to claim 1 at pages 3-4 of the Office Action. Similarly rejections are maintained against the remaining independent claims.

Claim 1 as amended recites a method for controlling the scaling of a 3D computer model in a 3D display system. The claimed method includes activating a zoom mode in response to user input, calculating a user's viewpoint, automatically selecting a model zoom point on a three-dimensional object as a function of the user's viewpoint and the 3D position of the object, setting a 3D zoom scaling factor, implementing a zoom operation on the object in a three-dimensional model space; and automatically moving the model zoom point from its original position towards a system, application, or user defined optimum viewing point according to a defined algorithm operating upon the selected model zoom point and the set scaling factor.

As described in the specification, in exemplary embodiments of the present invention, once a user has signaled a zoom operation various methods can be used to have a system automatically identify his desired object and select a model zoom point on that object. It can be cumbersome for a user to always have to signal a visualization system which 3D object is desired to be zoomed, and what center of zoom, or model zoom point, should be used. Sophisticated users want a system to have sufficient intelligence to do these tasks for them. Thus, as recited in claim 1, as amended, the system can determine what object a user is viewing by calculating his viewpoint and automatically setting a center of zoom on that object. The

object is located as a function of the calculated viewpoint and neighboring objects to the intersection of that viewpoint with the model space.

These processes, and various examples of model zoom point selection methods, are described, for example, in ¶¶ 63-77, and the psuedocode presented in ¶¶ 77-79 of the specification.

Additionally, in a zoom operation, where the center of scaling, or model zoom point, is ***not*** the optimum viewing point, as defined by the system, an application, or a user, a situation as depicted in Fig. 2B of the specification can occur. In such a situation the center of the zoomed object can undesirably translate within the display space as a result of the zoom operation being centered at point 201, whose (x,y,z) co-ordinates are not equal to (0,0,0), the system defined optimum viewing point in this example. *Specification* at ¶ 49. This motion of the model under examination can be disconcerting to a user, as some or most of the model under examination can move out of an optimum viewing area of the display screen. One conventional way to ameliorate this problem is to only allow zooming operations when the model zoom point is precisely at the optimum viewing point. However, this imposes counter-intuitive constraints on a user while examining a model.

Guedalia is directed to two-dimensional images. In particular, a method of displaying a cylindrical source image, such as a "cylindrical panorama," onto a flat plane. This involves mapping pixels form the curved source image to a view plane according to certain rules. Guedalia describes conventional 2D zoom operations in that context. It is not concerned with embodying a visualization system with intelligence to identify a desired object to be zoomed, or an appropriate model zoom point thereon.

Fleury describes navigating in a multi-scale 3D scene, such as a virtual oil well. It describes assigning reference shapes to 3D models. Fleury at ¶ 21. These shapes track the motion of 3D model objects. *Id.* Further, the Fleury system restricts the motion of the points of interest ("POI") within the 3D models to be within the associated reference shape. Fleury addresses a problem unique to less than optimal 3D visualization systems. The user cannot accurately choose a model zoom point (or model "pivot point") in 3D so it uses a 2D approximation. (It is noted that claim 1 of the present application is directed to model zoom points being selected in 3D, and thus the problem sought to be solved by Fleury does not arise). When a user implements a translation, rotation or zoom, the POI is moved along the reference shape. Fleury also is not concerned with embodying a visualization system with intelligence to identify a desired object to be zoomed, or an appropriate model zoom point thereon.

Thus, neither Guedalia nor Fleury teach or suggest calculating a user's viewpoint and automatically identifying a user's desired three-dimensional object and selecting a model zoom point on such three-dimensional object as a function of the user's viewpoint and the 3D position of the object, as is recited in independent claims 1 and 30.

Thus, claim 1 and related independent claims 28, 30 and 32 are urged as patentable over Guedalia and Fleury, whether alone or in combination.

For similar reasons, each of the remaining dependent claims are also urged as patentable over these references as well.

The Examiner has already allowed claim 39. Thus all claims are asserted as in condition for allowance.

Applicants would welcome the opportunity to conduct a personal interview and thereafter file a supplemental amendment to advance prosecution.

No other fee is believed to be due in connection with the submission of these papers. However, the Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 50-0540.

Dated: **September 27, 2007**

Respectfully submitted,

Aaron S. Haleva, Reg. No. 44,733
KRAMER LEVIN NAFTALIS & FRANKEL LLP
1177 Avenue of the Americas
New York, New York 10036
Tel.: (212) 715-7773
Fax.: (212) 715-9397